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ABSTRACT

Several researchers have hypothesized relationships between vocational congruence and career success. In view of this fact, a study examined the relationships between the vocational congruence, academic success, and career maturity of 401 undergraduates (251 females and 150 males) attending a large state university. The respondents, who participated in the study as part of an introductory psychology course requirement, represented a variety of academic majors and had an average age of 19.86 years. Participants completed a short demographic questionnaire and the following tests: Vocational Preference Inventory, Career Maturity Inventory-Attitude Scale, and Career Decision Making Scale. The females exhibited a higher level of vocational congruence than the males. Although the anticipated relationship between congruence and career decision-making attitudes was found for both females and males, there was no statistically significant association between congruence and academic success as measured by grade-point average (GPA) for males or females. The lack of a relationship between career decision-making skills and GPA was said to confirm the need for college-level career development programs to include specific methods and techniques designed to enhance students' career decision-making skills and academic performance. (Contains 28 references.) (MN)

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Evaluating the Relationship between College Students' Vocational Congruence, Academic Success, and Career Maturity: Career Counseling Implications and Future Directions

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Abstract

Holland (1985a) argued that vocational satisfaction, stability, and achievement depend on the congruence between one's personality and their occupational environment. This study explored the relationship between 401 college students' vocational congruence, academic success, and career maturity. Overall, females exhibited a higher level of vocational congruence than males ($p < .01$). Furthermore, although the expected relationship between congruence and career decision-making attitudes was revealed for both females and males ($p < .01$), congruence was not significantly associated with academic success or career decision-making skills for either gender. Implications for career counselors and ideas for future research are discussed.

Evaluating the Relationship between College Students' Vocational Congruence, Academic Success, and Career Maturity: Career Counseling Implications and Future Directions

Career maturity and vocational congruence are concepts of career development that have become the focus of many career and vocational guidance programs across the country. According to Crites (1973), career maturity consists of an affective component, such as career decision-making attitudes, and a cognitive component, such as career decision-making skills. Career decision-making attitudes refer to one's feelings and concerns regarding their pending career choices and vocational futures. Career decision-making skills refer to one's abilities to utilize proactive decision-making in response to a variety of career related dilemmas. It is a concept central to career development and its relationship to career satisfaction and achievement has been soundly supported in a number of conceptual studies (Harren, 1979; Super, 1984).

Vocational congruence, in turn, is defined as the relationship between an individual's personality type and the occupational choice that a person has selected at a given point in time (Holland, 1985a). Holland argued that vocational satisfaction, stability, and achievement depend

on the congruence between one's personality and their environment. Brown, White and Gerstein (1989) agreed, noting that the most satisfactory career choice likely to lead to persistence and success is the occupation that maximizes the congruence between one's personality and their occupational environment. One of Holland's primary predictions is that congruent individuals will be substantially more reinforced and satisfied with their current level of career development than will incongruent persons. Congruent individuals, therefore, are likely to possess greater academic skills, more vocationally mature decision-making attitudes and greater career decision-making skills than individuals who are not congruent.

Although some career developmental theorists (cf. Osipow, 1983) have posited that Holland's concept of congruence provides relatively few ideas for addressing vocational problems beyond the value of interest inventories, Spokane (1985) has argued that more complex and analytical research designs are vital in linking person-environment congruence to important career developmental outcomes. Spokane's claim that congruence research plays a vital role in the career development domain was recently

echoed by Cook (1991) in her observation that all career counseling approaches focus on at least some aspect of the prediction of the person-environment fit (i.e., congruence). Evaluating the role that vocational congruence plays within the broader context of career development, then, is clearly warranted.

To hypothesize meaningful relationships between congruence and various indices of career development, it is important to review how congruence is expected to operate. Several researchers (Healy & Mourton, 1985; Henry, 1989) have maintained that people who are vocationally congruent recognize more clearly than those who are not congruent the contributions of many facets of related skills and talents. Implicitly this recognition enables people to appreciate the importance of initiation and systematic planning to accomplish such tasks as choosing suitable courses in which to enroll. It also aids them in feeling more assured about the work they are doing and the training that they are receiving. Consequently, it is easier for these people to resolve career decisions calling for a systematic problem-solving approach, achieve academic success, and feel assured about the vocational issues facing them.

Several studies have examined the hypothesized

relationships between congruence and various career-related criteria with mixed results (e.g., Bruch & Krieshok, 1981; Healy and Mourton, 1985; Henry, 1989; Lent, Brown, & Larkin, 1987). For a group of freshmen engineers, for example, Bruch & Krieshok (1981) discovered that congruence was significantly associated with increased academic persistance and achievement. Similarly, Henry (1989) recently discovered that premedical students who were vocationally congruent achieved significantly higher cumulative GPAs than did incongruent students. Healy and Mourton (1983), on the other hand, found the absence of a relationship between congruence and academic achievement for community college students, yet later (1985) discovered the expected link between congruence and career decision-making skills. In a more recent investigation, Lent, Brown, & Larkin (1987) assessed the relationship between undergraduates' congruence, GPA, and career indecision. Analyses revealed the expected negative relationship between congruence and career indecision, yet indicated a lack of relationship between congruence and GPA.

Despite the numerous investigations of vocational congruence over the past two decades, many questions about the role of congruence within the broader context of career

development remain (Brown, White, & Gerstein, 1989; Lent, Brown, & Larkin, 1987; Spokane, 1985). The contradictory results of studies employing vocational congruence as a predictor of students' career maturity and academic success emphasize the importance of additional research in this area.

The following investigation sought to evaluate the relationship between 401 undergraduates' vocational congruence, GPA, career decision-making attitudes and career decision-making skills. Based on Holland's (1985a) theoretical predictions, it was expected that significant relationships would be revealed between congruence and each of the other variables included in the investigation.

Method

Participants

Participants included 401 undergraduates (251 females, 150 males) attending a large state university. The majority of the participants were first- and second-year students, with an average age of 19.86 (*SD* = 1.53). The majority of the participants were Caucasian-American (*n* = 210); other ethnic groups represented included African-Americans (*n* = 27), Asian-Americans (*n* = 59), Hispanics (*n* = 49), and Filipinos (*n* = 38). Participants' academic majors

represented a wide variety of interest areas. All students participated as part of an introduction to psychology course requirement.

Measures

Vocational Congruence. Measuring vocational congruence requires assessing both the person and their occupational environment. In his 1985 review of congruence research, Spokane explained that the majority of person-measures of congruence are primarily interest inventories, most commonly the Self-Directed Search (Holland, 1985b) and the Vocational Preference Inventory (VPI) (Holland, 1985c). For the environmental component of congruence, many researchers measuring the vocational congruence of college students (e.g., Elton & Rose, 1981; Healy & Mourton, 1983; Orcutt & Walsh, 1979; Wolfe & Betz, 1981) use intended majors or occupational choices (career aspirations), coded in terms of Holland's hexagon. As Spokane (1985) concluded, this appears to be a reliable and valid measure of an individual's environment. Therefore, for the purposes of this investigation, vocational congruence was measured by comparing participants' scores on the VPI with their current career aspiration.

The Iachan (1984) scoring procedure, supported by

Holland (1987) and utilized in a variety of recent investigations (e.g., Brown, White, & Gerstein, 1987; Luzzo, in press) was used to calculate a congruence index for each participant. The Iachan index takes into account the increasing importance of agreement in positions corresponding to the highest ranks. Using the three-letter code for the person and the environment provided by the Dictionary of Holland Occupational Codes (Gottfredson, Holland, & Ogawa, 1982), there are 29 possible levels of congruence, ranging from 0-28. Higher scores indicate greater vocational congruence. Participants' congruence values ranged from 0-28 (M = 19.67, SD = 7.54).

Career Decision-Making Attitudes. Screening Form A-2 of Crites's (1978) Career Maturity Inventory-Attitude Scale (CMI-AS) was used to measure participants' career decision-making attitudes. The CMI-AS is one of the most common assessments of career maturity and is considered to be the most popular motivation measure of career attitudes (Savickas, 1984).

The CMI-AS includes 50 true-false items represeting five different attitudes toward career decision making. Higher scores indicate more mature attitdues toward career decision making and more confidence in vocational decisions

(Fuqua & Newman, 1989). Crites (1973; 1978) reported Kuder-Richardson (KR) 20 reliability estimates between .72 and .90 and test-retest reliability of .71. The CMI-AS is viewed as an adequate affective measure of the career maturity construct (Zytowski, 1978). Participants in the investigation had CMI-AS scores ranging from 17-48 (M = 36.84, SD = 5.08).

Career Decision-Making Skills. Participants' career decision-making skills were measured by the 20-item decision-making scale of Super and colleagues' Career Development Inventory-University and College Form (Super, Thompson, Lindeman, Jordaan, & Myers, 1981). The career decision-making scale (CDMS) assesses competence in resolving simulated career dilemmas. The twenty questions are followed by four responses from which participants select the best answer. The manual reports alpha coefficients for college students ranging from .60-.82. Scores on the CDMS relate moderately to various other measures of career decision-making ability and knowledge (Jepsen & Prediger, 1981). Participants' CDMS scores ranged from 3-19 (M = 13.00, SD = 2.46).

Current GPA. Current GPA was assessed by asking for a self-report of each student's college GPA.

Procedure

Participants completed a battery of measures (VPI, CMI-AS, CDMS) and responded to a short questionnaire assessing demographic information (gender, age, year in college), current career aspiration, and current GPA. The packets were completed in groups of 3-20, with each participant completing the battery of measures within 45 mins.

Results

Results indicated a significant relationship between gender and vocational congruence, with females (M = 20.52, SD = 7.03) exhibiting greater congruence than males (M = 18.23, SD = 8.17), t (358) = 2.81, p < .01. Additional analyses, therefore, were conducted separately for each gender.

Insert Table 1 about here

A correlational matrix including each of the variables is provided in Table 1. Pearson-product moment correlations for females appear above the diagonal, whereas correlations for males are shown below the diagonal. For females, vocational congruence was significantly associated with career decision-making attitudes (r = .322, p < .001) but not with career decision-making skills (r = .097) or GPA (r

= -.104). Furthermore, career decision-making attitudes significantly predicted both career decision-making skills (r = .135, p < .05) and GPA (r = .268, p < .001).

For males, as was the case with females, vocational congruence was significantly associated with career decision-making attitudes (r = .235, p < .01) but not with career decision-making skills (r = .086) or GPA (r = -.021). Again, career decision-making attitudes significantly predicted career decision-making skills (r = .135, p < .05) for males, but career decision-making attitudes were not significantly associated with GPA, although a slight trend was revealed (r = .150, p = .074).

Discussion

As expected, college students' vocational congruence significantly predicted their career decision-making attitudes, a measure of the affective component of career maturity. At the same time, however, the results question the hypothesis that college students' vocational congruence is significantly associated with academic achievement and career decision-making skills, the cognitive component of career maturity.

Although the percent of variance in participants' career decision-making attitudes explained by vocational

congruence was relatively small (approximately 10% for females and 5% for males), the findings imply that students can improve their attitudes towards the career decision-making process (which, in turn, reflects a greater degree of stability and confidence in one's career decisions) by seeking opportunities and exploring career options that are more directly congruent with their personality type. The findings support career development programs for college students that provide occupational opportunities for career exploration and growth in fields of direct interest to students.

The lack of a relationship between congruence and both career decision-making skills and GPA suggests that students who are vocationally congruent are not necessarily prepared for making effective career decisions. Likewise, it would be incorrect to conclude that a student's vocational congruence is an indication of future academic success. The results clearly illustrate the need for career development programs on college campuses to include specific methods and techniques designed to enhance students' career decision-making skills and academic performance.

Results of statistical analyses regarding career decision-making attitudes support its continued use as an

index of career development. For both females and males, career decision-making attitudes and career decision-making skills were significantly correlated, revealing the expected relationship between affective and cognitive components of career maturity. Futhermore, although the relationship between career decision-making attitudes and GPA for males only approached significance, the relationship was statistically significant for females. Exploring career counseling strategies and techniques that effectively improve students' career decision-making attitudes seems a worthwhile endeavor.

As far as college students' vocational congruence is concerned, future research assessing its relationship to a variety of additional career development variables is warranted. Unraveling the reasons for the observed relationship between congruence and career decision-making attitudes yet the absence of the expected relationships between congruence and other variables employed in the study (career decision-making skills and GPA) should be a focus of future investigations. The obvious limitations of the current study, such as the use of self-report GPA and the limited use of only two measures of career maturity, should also be addressed in the future. Furthermore, researchers

might begin to explore the relationships of vocational congruence with other aspects of career maturity and recently developed indices of career growth, such as career decision-making self efficacy and career beliefs.

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Table 1

Correlational Matrix of Variables for Females and Males

	CONG	CMI-AS	CDMS	GPA
CONG[a]		.322*** (227)	.097 (227)	-.104 (215)
CMI-AS[b]	.235** (133)		.135* (251)	.268*** (239)
CDMS[c]	.086 (133)	.207* (149)		.096 (239)
GPA	-.021 (127)	.150 (143)	-.004 (144)	

Notes.

Correlations above the diagonal are for females and below the diagonal are for males.

( ) = n for each correlation.

[a]CONG = Congruence Score.

[b]CMI-AS = Score on the Career Maturity Inventory-Attitude Scale (measure of career decision-making attitudes).

[c]CDMS = Score on the Career Decision-Making Scale of the Career Development Inventory (measure of career decision-making skills).

*p < .05

**p < .01

***p < .001